REMARKS

Request for Continued Examination

Applicant respectfully requests continued examination of the above-indicated

5   application as per 37 CFR 1.114.

Claims 1, 3-6, and 10, 14, 16-18, and 20-21, 23-25 are rejected under 35 USC 103a as being unpatentable over Suzuki (Publication No. U.S. 20040079864 A1) in view of Hawryluk (US Patent No. 6,303,917 B1), and Claims 8-9 and 11-12 are rejected

10   **under 35 USC 103a as being unpatentable over Suzuki (Publication No. U.S. 20040079864 A1) as applied to claims 1, 3-6, 8, and 10-12, 14, 16-18, and 20-21 above, and further in view of Kawakami (Publication No. US 2003/0235126 A1), and Claims 7, 19, and 26 are rejected under 35 USC 103a as being unpatentable over Suzuki (Publication No. U.S. 20040079864 A1) as applied to claims 1, 3-6, 8, and**

15   **10-12, 14, 16-18, and 20-21 above, and further in view of Sasaki (US Patent No 5,040,163)**

Claims 1-26 are cancelled. **Although applicant believes both cited references are base on a different concept from the claimed invention, applicant made the foregoing amendment to further claim the invention. This by no means implies**

20   **applicant agrees with the Examiner's interpretations.**

New Claims

Applicant has added new claims 27-48. Claims 27-37 are directed at a light emitting device calibration system, and claims 38-48 are directed at a corresponding method of

25   calibrating a light emitting device in an optical disc drive. No new matter is added. In particular, many of the claim limitations are taken from the now cancelled claims 1-26. Applicant has provided below a reference to the specification as originally filed supporting all the additional claim limitations not originally present in the now cancelled claims 1-26. Also provided below are comments pertaining to the patentability of the

30   independent claims and particular dependent claims with respect to the above cited references.

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          Concerning independent claims 27 and 38, applicant points out that the additional claim limitations are supported in paragraph [18] stating, "the output generator 212 of the power meter 204 generates an analog signal V_A being proportional to the intensity of the light received by the photo sensor 214. The outputted analog signal V_A is therefore also

5   proportional to the output laser power of the LD 211." Also, paragraph [22] of the original specification as filed states that "the signal calibration circuit 216 outputs a power indication V_{PI} having an inverse relationship with the analog signal V_A. Because the voltage reference source VREF has a predetermined voltage value, when the LD 21 is turned off and therefore not emitting any light, the analog signal V_A will be zero volts and

10   the power indication signal V_{PI} will have a voltage value equal to 2VREF." Additionally, formula 1 shown in paragraph [21] shows that the power indication signal V_{PI} is a function of the predetermined reference voltage VREF and V_{PI} reaches a maximum value (2*VREF) when V_A is zero indicating no light is being emitted by the light emitting device.

15   Applicant points out that the above cited references at least do not teach or suggest "a signal calibration circuit having a predetermined reference voltage being coupled between the light detector and the microprocessor for generating the power indication signal having an inverse relationship with the analog signal such that when the analog signal is at the state of no light was emitted by the light emitting device, the power indication signal

20   reaches at a predetermined maximum value, which is a function of the predetermined reference voltage" as recited in claim 27 and similar language in claim 38. In particular, applicant points out that the laser performance described by Suzuki in paragraph [0051] as being the "ratio of power to current" and shown in the formula just above paragraph [0054] is not equal to the power indication signal of the present invention because the laser

25   performance ratio of Suzuki does not reach a predetermined maximum value when the light being emitted by the laser diode is 0. That is, if no light is emitted, both P1 and P2 will be zero and the "ratio of power to current" will therefore also be zero. For at least this reason, applicant asserts that independent claims 27 and 38 should be found allowable with respect to the above cited references. As claims 28-37 and 39-48 are

30   dependent upon claims 27 and 38, respectively, if claims 27 and 38 are found allowable so too should the dependent claims 28-37 and 39-48.

          Concerning claims 28 and 39, applicant points out that the additional claim

limitations are supported in paragraph [22] as quoted above and also in paragraph [25] stating, "The CPU 206 uses this gain value during calibration to correct the values measured by the analog to digital converter 218 for the received power indications V_{PI} of the different drive signal values." Applicant points out that none of the cited references

5　teach or suggest, "during the calibration mode, the microprocessor is for changing a value of the drive signal to the light emitting device so that the light emitting device does not emit any light, then for calculating a gain of the light emitting device calibration system by measuring a sampled maximum value of the power indication signal as detected by the microprocessor corresponding to the predetermined maximum value of the power

10　indication signal, and then for utilizing the gain during the calibration mode to correct the power indication signals as measured by microprocessor for each of the plurality of values of the drive signal", as is claimed in claim 28 and similarly in claim 39.
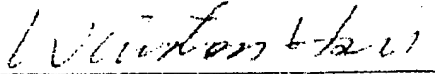
Concerning claims 29 and 40, applicant points out the additional claim limitations are supported in paragraph [22] as quoted above. Applicant notes that none of the cited

15　references teach or suggest that "during the calibration mode, when the analog signal is at a value indicating no light was emitted by the light emitting device, the power indication signal being at a predetermined maximum value being substantially equal to two times the predetermined reference voltage", as is claimed in the present invention.

Concerning claims 31 and 42, applicant points out that the additional claim

20　limitations are supported in formula 2 of paragraphs [23] to [24] stating that $GAIN = (2*VREF)/(V_{CPU})$, where V_{CPU} is the value of the power indication signal V_{IP} as sampled by the analog to digital converter 218 of the CPU 206. Applicant points out that such operation is not taught by the above cited references.

Concerning claims 32 and 43, applicant points out the additional claim limitations

25　are supported in formula 3 in paragraph [27] stating Laser Power $= (2*VREF) - (GAIN * V_{CPU})$. Applicant points out that such operation is not taught by the above cited references.

Consideration of new claims 27-48 is respectfully requested.

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Sincerely yours,

Winston Hsu   Date: _____11/24/2006_____

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10   Note: Please leave a message in my voice mail if you need to talk to me. (The time in

D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)

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